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PATENT COOPERATION TREATY

PCT/EP2004/003380

From the INTERNATIONAL BUREAU

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NOTIFICATION OF TRANSMITTAL
OF COPIES OF TRANSLATION
OF THE INTERNATIONAL PRELIMINARY REPORT
ON PATENTABILITY
(CHAPTER I OR CHAPTER II
OF THE PATENT COOPERATION TREATY)
(PCT Rules 44bis, 46a and 72.2)

To:
HÖTTER, Klaus
Clariant Service GmbH
Patente, Marken, Lizenzen
Am Unisys-Park 1
65843 Sulzbach
ALLEMAGNE

Date of mailing (day/month/year) 09 March 2006 (09.03.2006)	IMPORTANT NOTIFICATION
Applicant's or agent's file reference 2003DE109	
International application No. PCT/EP2004/003380	International filing date (day/month/year) 31 March 2004 (31.03.2004)
Applicant CLARIANT GMBH et al	

1. Transmittal of the translation to the applicant.



The International Bureau transmits herewith a copy of the English translation of the international preliminary report on patentability (Chapter II).



The International Bureau transmits herewith a copy of the English translation of the international preliminary report on patentability (Chapter II).

2. Transmittal of the copy of the translation to the designated or elected Offices.

The International Bureau notifies the applicant that copies of that translation have been transmitted to the following designated or elected Offices requiring such translation.

None

The following designated or elected Offices, having waived the requirement for such a transmittal at this time, will receive copies of that translation from the International Bureau only upon their request.

AE, AG, AI, AM, AP, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DK, DM, DZ, EA, EC, EE, EG, EP, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OA, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

3. Reminder regarding translation into (one of) the official language(s) of the elected Office(s).

The applicant is reminded that, where a translation of the international application must be furnished to an elected Office, that translation must contain a translation of any annexes to the international preliminary report on patentability (Chapter II).

It is the applicant's responsibility to prepare and furnish such translation directly to each elected Office concerned within the applicable time limit (Rule 74.1). See Volume II of the PCT Applicant's Guide for further details.

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland	Authorized officer Yolaine Cussac
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PATENT COOPERATION TREATY

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INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY
(Chapter I of the Patent Cooperation Treaty)

(PCT Rule 44bis)

Applicant's or agent's file reference 2003DE109	FOR FURTHER ACTION		See item 4 below
International application No. PCT/EP2004/003380	International filing date (day/month/year) 31 March 2004 (31.03.2004)	Priority date (day/month/year) 10 April 2003 (10.04.2003)	
International Patent Classification (8th edition unless older edition indicated) See relevant information in Form PCT/ISA/237			
Applicant CLARIANT GMBH			

1. This international preliminary report on patentability (Chapter I) is issued by the International Bureau on behalf of the International Searching Authority under Rule 44 bis.1(a).

2. This REPORT consists of a total of 8 sheets, including this cover sheet.
In the attached sheets, any reference to the written opinion of the International Searching Authority should be read as a reference to the international preliminary report on patentability (Chapter I) instead.

3. This report contains indications relating to the following items:

<input checked="" type="checkbox"/> Box No. I	Basis of the report
<input checked="" type="checkbox"/> Box No. II	Priority
<input type="checkbox"/> Box No. III	Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
<input type="checkbox"/> Box No. IV	Lack of unity of invention
<input checked="" type="checkbox"/> Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability, citations and explanations supporting such statement
<input checked="" type="checkbox"/> Box No. VI	Certain documents cited
<input type="checkbox"/> Box No. VII	Certain defects in the international application
<input type="checkbox"/> Box No. VIII	Certain observations on the international application

4. The International Bureau will communicate this report to designated Offices in accordance with Rules 44bis.3(c) and 93bis.1 but not, except where the applicant makes an express request under Article 23(2), before the expiration of 30 months from the priority date (Rule 44bis.2).

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland Facsimile No. +41 22 740 14 35 Form PCT/IB/373 (January 2004)	Date of issuance of this report 02 March 2006 (02.03.2006)
	Authorized officer Yolaine Cussac Telephone No. +41 22 338 70 80

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PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

In

PCT

Translation

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43bis 1)

Date of mailing (day/month/year)		FOR FURTHER ACTION See paragraph 2 below
Applicant's or agent's file reference 2003DE109		
International application No. PCT/EP2004/003380	International filing date (day/month/year) 31.03.2004	Priority date (day/month/year) 10.04.2003
International Patent Classification (IPC) or technical classification and IPC		
Applicant CLARIANT GMBH		
<p>1 This opinion contains indications relating to the following items:</p> <p><input checked="" type="checkbox"/> Box No. I Basis of the opinion</p> <p><input checked="" type="checkbox"/> Box No. II Priority</p> <p><input type="checkbox"/> Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</p> <p><input type="checkbox"/> Box No. IV Lack of unity of invention</p> <p><input checked="" type="checkbox"/> Box No. V Reasoned statement under Rule 43bis 1(a)(ii) with regard to novelty, inventive step or industrial applicability, citations and explanations supporting such statement</p> <p><input checked="" type="checkbox"/> Box No. VI Certain documents cited</p> <p><input type="checkbox"/> Box No. VII Certain defects in the international application</p> <p><input type="checkbox"/> Box No. VIII Certain observations on the international application</p> <p>2 FURTHER ACTION</p> <p>If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 60 (bis)(b) that written opinions of this International Searching Authority will not be so considered.</p> <p>If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.</p> <p>For further options, see Form PCT/ISA/220.</p> <p>3 For further details, see notes to Form PCT/ISA/220.</p>		
Name and mailing address of the ISA/IB		Authorized officer
Facsimile No.		Telephone No.

Form PCT/ISA/237 (cover sheet) (January 2004)

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WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY		International application No. PCT/EP2004/003380
Box No. 1	Basis of this opinion	
1	With regard to the language, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item. <input type="checkbox"/> This opinion has been established on the basis of a translation from the original language into the following language _____, which is the language of a translation furnished for the purposes of international search (under Rule 12.3 and 23 (1b)).	
2	With regard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of: a. type of material <input type="checkbox"/> a sequence listing <input type="checkbox"/> table(s) related to the sequence listing b. format of material <input type="checkbox"/> in written format <input type="checkbox"/> in computer readable form c. time of filing/drafting <input type="checkbox"/> contained in the international application as filed <input type="checkbox"/> filed together with the international application in computer readable form <input type="checkbox"/> furnished subsequently to this Authority for the purposes of search	
3	<input type="checkbox"/> In addition, in the case that more than one version or copy of a sequence listing and/or table(s) relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.	
4	Additional comments:	

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WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/KP2004/003380

Box No. 11

Priority

- 1 ☒ The following document has not yet been examined.
- ☒ copy of the earlier application whose priority has been claimed (Rule 43bis I and 46 7(a))
- ☐ translation of the earlier application whose priority has been claimed (Rule 43bis I and 46 7(b))
- Consequently it has not been possible to consider the validity of the priority claim. This opinion has nevertheless been established on the assumption that the relevant date is the claimed priority date.
- 2 ☐ This opinion has been established as if no priority had been claimed due to the fact that the priority claim has been found invalid (Rules 43bis I and 46 1). Thus for the purposes of this opinion, the international filing date indicated above is considered to be the relevant date.
- 3 Additional observations, if necessary.

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WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY		International application No. PCT/EP2004/003360
Box No. V Reasoned statement under Rule 43bis (b)(1) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement		
1 Statement		
Novelty (N)	Claims 1-9	YES
	Claims	NO
Inventive step (IS)	Claims 1-9	YES
	Claims	NO
Industrial applicability (IA)	Claims 1-9	YES
	Claims	NO
2 Citations and explanations:		
V.1 The present invention describes azo dyes containing methanesulfonamide groups and their use in recording fluids, in particular for the ink jet process.		
V.2 The following documents are cited:		
D1: US-A-6 127 531		
D2: US 2001/027734 A1		
D3: US-B-6 635 7471 (PATEL PRAKASH ET AL) 21 October 2003 (2003 10-21)		
D3 was published after the filing date and therefore is not considered as prior art.		
V.3 Novelty		
D1 describes phenyl-azo-naphthalene dyes that differ from the azo dyes of the invention in that they do not contain a methanesulfonamide group. The dyes are useful for printing ink (claims 1 and 9).		
D2 describes black trisazo metal complex dyes that differ from the azo dyes of the invention in that the NSO ₂ CH ₃ group is an SO ₃ group and the phenyl.		

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WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/EP2004/003380

Box No. V

Reasoned statement under Rule 43bis (a)(ii) with regard to novelty, inventive step or industrial applicability
of/claims and explanations supporting such statement

group contains two azo bonds. The dyes are useful for printing ink (claims 8 and 10).

D3 describes phenyl azo-naphthalene dyes that differ from the azo dyes of the invention in that they do not contain a methanesulfonamide group and are substituted in the naphthalene ring by a triazine group. The dyes are useful for printing ink (examples and claim 8).

A compound according to formula 1 is not described in any document. Claims 1-4 therefore fulfill the requirements of PCT Article 33(2).

Claim 5 describes a process for preparing a compound according to formula 1 and thus is novel.

Claims 6 and 7 describe the use of a compound according to formula 1 for dyeing and printing and thus are novel.

Claim 8 describes a recording fluid comprising a compound according to claim 1 and thus is novel.

Claim 9 describes the use of a recording fluid according to claim 8 and thus is novel.

V.4 Inventive step

The problem addressed by the present invention can be considered that of providing novel and possibly improved azo dyes that are ecologically safe and feature high solubility in water and/or organic

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WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/EP2004/003380

Box No. V

Reasoned statement under Rule 43bis (b)(4) with regard to novelty, inventive step or industrial applicability;
statements and explanations supporting such statement

solvents, good ozone and light fastnesses, high color strength and brilliance. The applicant demonstrates that the dyes of this invention have these properties in the examples. The dyes have not been previously described in prior art nor are they derivable therefrom. The subject matter of this application therefore fulfills the requirements of PCT Article 33(3).

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WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY				International application No. PCT/EP2004/003380
Box No. VI	Cited documents cited			
1 Cited published documents (Rule 43bis I and 70 I)				
Application No. (Patent No.)	Publication date (day/month/year)	Filing date (day/month/year)	Priority date (valid claim) (day/month/year)	
US-B 6 635 747] (PATEL PRAKASH ET AL) 21 October 2003 (2003-10-21)				
2 Non-written disclosures (Rule 43bis I and 70 II)				
Kind of non-written disclosure	Date of non-written disclosure (day/month/year)	Date of written disclosure relating to non-written disclosure (day/month/year)		

Form PCT/ISA/237 (Box No. VI) January 2004